

In the Specification

Please replace paragraph [008] with the following rewritten paragraph:

[008] DC-DC-converters of different type types can be used in a circuit arrangement according to embodiments of the present invention. Good results have been obtained in case the DC-DC-converter is an up-converter and circuitry I controls T_{on} proportional to V_{out}/V_{in}^2 . Similarly, the DC-DC-converter can be implemented as a down-converter while circuitry I controls T_{on} proportional to $V_{out}/(V_{out}-V_{in})^2$. Good results have also been obtained in case the DC-DC-converter is a flyback-converter that comprises a transformer with a transformation ratio N and circuitry I controls T_{on} proportional to $(V_{in} + V_{out}/N)/V_{in}^2$.

Please replace paragraph [0012] with the following rewritten paragraph:

[0012] Fig. 1 shows an embodiment of a circuit arrangement according to the invention with a LED array connected to it and comprising a DC-DC-converter of the up-converter type, and

Please replace paragraph [0013] with the following rewritten paragraph:

[0013] Fig. 2 shows part of the embodiment shown in Fig. 1 in more detail., and

After paragraph [0013], please add the following paragraph:

[0013.1] Fig. 3 shows an embodiment of a circuit arrangement according to the invention with a LED array connected to it and comprising a DC-DC-converter.

Please replace paragraph [0017] with the following rewritten paragraph:

[0017] The control circuit controls the switching in the following way. Because of the presence of capacitor C1 (and the parasitic capacitor that is part of switching element Q1), the direction of the current through the inductive element L changes polarity for a very short time lapse at the end of each period of the control signal. As a consequence a current with a very small amplitude flows from the capacitor C1 in the direction of the input terminal K1. This causes the common terminal of switching element Q1 and the inductive element L to be at a higher potential than input terminal K1. Circuit part CC detects this situation and activates circuit part I that renders switching element Q1 conductive and maintains switching element Q1 conductive during a time lapse T_{on} that is proportional to V_{out}/V_{in}^2 , wherein V_{in} is the voltage that is present between the input terminals and V_{out} is the voltage between the output

terminals. During T_{on} the current through inductive element L increases linearly to a value I_{peak} . For the value of I_{peak} the following equation is valid:

$$I_{peak} = V_{in} \cdot T_{on}/L_o,$$

wherein L_o is the inductivity of inductive element L.

After paragraph [0021], please add the following paragraph:

[0021.1] DC-DC-converters of different types can be used in a circuit arrangement according to embodiments of the present invention. For example, as illustrated in Fig. 3, which is similar to Fig. 1, the DC-DC-converter, illustrated as box Conv, can be implemented as a down-converter while circuitry I controls T_{on} proportional to $V_{out}/((V_{out}-V_{in})^2)$. Good results have also been obtained in case the DC-DC-converter Conv is a flyback-converter that comprises a transformer TR with a transformation ratio N and circuitry I controls T_{on} proportional to $(V_{in} + V_{out}/N)/V_{in}^2$. The transformer TR is illustrated in Fig. 3 with broken lines as the transformer may not be used with all converters.

SILICON VALLEY
PATENT GROUP LLP

2350 Mission College Blvd.
Suite 360
Santa Clara, CA 95054
(408) 982-8200
FAX (408) 982-8210